BRUHAT BANGALORE MAHANAGARA PALIKE
BYTARAYANPURA DIVISION

Name of Work:
mprovements to Road and Drains at Fathima Layout Main Road in Vard no.6 Byatarayanapura Sub Division

1ST& FINAL BILL

PRE-MEASUREMENT

TEJUS CONSULTANTS
CONSULTING ENGINEERS AND DESIGNERS
No.58 MIG, 6th Cross, 3rd Main
1st Stage, Basaveshwaranagar
Bangalore-560079
☎ 080 - 23287532
email: tejusconsultants@gmail.com

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Bruhat Bengaluru Mahanagara Palike

Bytarayanapura Division

Job Code :- 006-18-000031

Name of Agency :- M/S Sathya constructions.

Bill No :- 1st and final bill

Name Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6 Byatarayanapura Sub Division

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Measurement Recorded on										
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)										
	1st cross Rd										
	LHS										
	0.00	15.00		1	15.00			0.65	0.90	8.78	
	15.00	30.00		1	15.00			0.65	0.90	8.78	
	30.00	45.00		1	15.00			0.65	0.90	8.78	
	45.00	60.00		1	15.00			0.65	0.90	8.78	
	60.00	75.00		1	15.00			0.65	0.90	8.78	
	75.00	90.00		1	15.00			0.65	0.90	8.78	
	90.00	105.00		1	15.00			0.65	0.90	8.78	
	105.00	120.00		1	15.00			0.65	0.90	8.78	
	120.00	135.00		1	15.00			0.65	0.90	8.78	
	135.00	150.00		1	15.00			0.65	0.90	8.78	
	150.00	165.00		1	15.00			0.65	0.90	8.78	
	165.00	172.00		1	7.00			0.65	0.90	4.10	
	1st cross Rd										
	RHS										
	0.00	15.00		1	15.00			0.65	0.90	8.78	
	15.00	30.00		1	15.00			0.65	0.90	8.78	
	30.00	45.00		1	15.00			0.65	0.90	8.78	
	45.00	60.00		1	15.00			0.65	0.90	8.78	
	60.00	75.00		1	15.00			0.65	0.90	8.78	
	75.00	90.00		1	15.00			0.65	0.90	8.78	
	90.00	105.00		1	15.00			0.65	0.90	8.78	
	105.00	120.00		1	15.00			0.65	0.90	8.78	
	120.00	135.00		1	15.00			0.65	0.90	8.78	
	135.00	150.00		1	15.00			0.65	0.90	8.78	
	150.00	165.00		1	15.00			0.65	0.90	8.78	
	165.00	172.00		1	7.00			0.65	0.90	4.10	
	1st main rd (ICICI bank)										
	RHS										

Consultant

Assistant Engineer 4/11/2019

Assistant Executive Engineer

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Pre- Measurements

Name Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Byatarayanapura Sub Division

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Measurement Recorded on										
	0.00	15.00		1	15.00			1.10	1.00	16.50	
	15.00	30.00		1	15.00			1.10	1.00	16.50	
	30.00	45.00		1	15.00			1.10	1.00	16.50	
	45.00	60.00		1	15.00			1.10	1.00	16.50	
	60.00	75.00		1	15.00			1.10	1.00	16.50	
	75.00	90.00		1	15.00			1.10	1.00	16.50	
	90.00	105.00		1	15.00			1.10	1.00	16.50	
	105.00	122.00		1	17.00			1.10	1.00	18.70	
	128.00	143.00		1	15.00			1.10	1.00	16.50	
	143.00	156.00		1	13.00			1.10	1.00	14.30	
	LHS										
	128.00	143.00		1	15.00			1.10	1.00	16.50	
	143.00	158.00		1	15.00			1.10	1.00	16.50	
	158.00	174.00		1	16.00			1.10	1.00	17.60	
	4th cross road										
	0.00	15.00		1	15.00			0.65	0.60	5.85	
	15.00	30.00		1	15.00			0.65	0.60	5.85	
	30.00	45.00		1	15.00			0.65	0.60	5.85	
	45.00	60.00		1	15.00			0.65	0.60	5.85	
	60.00	75.00		1	15.00			0.65	0.60	5.85	
	75.00	90.00		1	15.00			0.65	0.60	5.85	
	90.00	105.00		1	15.00			0.65	0.60	5.85	
	105.00	120.00		1	15.00			0.65	0.60	5.85	
	120.00	135.00		1	15.00			0.65	0.60	5.85	
	135.00	150.00		1	15.00			0.65	0.60	5.85	
	150.00	165.00		1	15.00			0.65	0.60	5.85	
	165.00	180.00		1	15.00			0.65	0.60	5.85	
	180.00	195.00		1	15.00			0.65	0.55	5.36	
									Total Qty	492.40	
									Qty Lmtd to	356.31	Cum

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4/11/2019

IUS CONSULTANTS
Consultant

04/11/2019
Assistant Engineer

4/11/2019
Assistant Executive Engineer

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Name Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6 Byatarayanapura Sub Division

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Measurement Recorded on										
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)										
	1st cross Rd										
	LHS										
	0.00	15.00		1	15.00			1.35		20.25	
	15.00	30.00		1	10.00			1.35		13.50	
	30.00	45.00		1	15.00			1.35		20.25	
	45.00	60.00		1	8.00			1.35		10.80	
	60.00	75.00		1	15.00			1.35		20.25	
	75.00	90.00		1	7.00			1.35		9.45	
	90.00	105.00		1	15.00			1.35		20.25	
	105.00	120.00		1	9.00			1.35		12.15	
	120.00	135.00		1	6.00			1.35		8.10	
	135.00	150.00		1	5.00			1.35		6.75	
	150.00	165.00		1	15.00			1.35		20.25	
	165.00	172.00		1	7.00			1.35		9.45	
	1st cross Rd										
	RHS										
	0.00	15.00		1	15.00			1.35		20.25	
	15.00	30.00		1	7.00			1.35		9.45	
	30.00	45.00		1	8.00			1.35		10.80	
	45.00	60.00		1	9.00			1.35		12.15	
	60.00	75.00		1	15.00			1.35		20.25	
	75.00	90.00		1	6.00			1.35		8.10	
	90.00	98.00		1	8.00			1.35		10.80	
	Paralell raod to 1st cross Rd										
	LHS										
	0.00	15.00		1	15.00			1.35		20.25	
	15.00	30.00		1	15.00			1.35		20.25	
	30.00	45.00		1	15.00			1.35		20.25	
	45.00	60.00		1	15.00			1.35		20.25	
	60.00	73.00		1	13.00			1.35		17.55	
	Paralell raod to 1st cross Rd										
	RHS										
	0.00	15.00		1	15.00			1.35		20.25	
	15.00	30.00		1	15.00			1.35		20.25	

6/11/2019

Consultant

Assistant Engineer

Assistant Executive Engineer

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Name Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6 Nayatarayanapura Sub Division

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Measurement Recorded on										
	30.00	45.00		1	15.00			1.35		20.25	CRC
	45.00	60.00		1	15.00			1.35		20.25	
	60.00	68.00		1	8.00			1.35		10.80	
									Total Qty	453.60	
								Quantity Limited to		452.92	sqm

6/11/2019

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Assistant Engineer

Assistant Executive Engineer

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ame Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6
yatarayanapura Sub Division

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Measurement Recorded on										
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc.. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)										
	1st cross Rd										
	LHS										
	15.00	30.00		1	5.00			1.35		6.75	
	45.00	60.00		1	7.00			1.35		9.45	
	75.00	90.00		1	8.00			1.35		10.80	
	105.00	120.00		1	6.00			1.35		8.10	
	120.00	135.00		1	9.00			1.35		12.15	
	135.00	150.00		1	10.00			1.35		13.50	
	1st cross Rd										
	RHS										
	15.00	30.00		1	8.00			1.35		10.80	
	30.00	45.00		1	7.00			1.35		9.45	
	45.00	60.00		1	9.00			1.35		12.15	
	75.00	90.00		1	6.00			1.35		8.10	
								Total Qty		**101.25**	
								Quantity Limited to		**99.90**	**Sqm**

Consultant

Assistant Engineer

Assistant Executive Engineer

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Name Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6 Byatarayanapura Sub Division

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Measurement Recorded on									
4	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs. with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum. machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)									
	New Drain									
	1st main rd (ICICI bank)									
	RHS									
	0.00	15.00		1	15.00			1.10	0.10	1.65	
	15.00	30.00		1	15.00			1.10	0.10	1.65	
	30.00	45.00		1	15.00			1.10	0.10	1.65	
	45.00	60.00		1	15.00			1.10	0.10	1.65	
	60.00	75.00		1	15.00			1.10	0.10	1.65	
	75.00	90.00		1	15.00			1.10	0.10	1.65	
	90.00	105.00		1	15.00			1.10	0.10	1.65	
	105.00	122.00		1	17.00			1.10	0.10	1.87	
	128.00	143.00		1	15.00			1.10	0.10	1.65	
	143.00	156.00		1	13.00			1.10	0.10	1.43	
	LHS									
	128.00	143.00		1	15.00			1.10	0.10	1.65	
	143.00	158.00		1	15.00			1.10	0.10	1.65	
	158.00	174.00		1	16.00			1.10	0.10	1.76	
									Total Qty	**21.56**	**Cum**

11/11/2019

Consultant

Assistant Engineer

Assistant Executive Engineer

11/11/2019

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Name Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6 Byatarayanapura Sub Division

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Measurement Recorded on										
5	KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6.2 (P.No.15, I.No.4.28 of PW, P&IWTD S.R 2016-17)										
	New Drain										
	For bottom slab										
	1st main rd (ICICI bank)										
	RHS										
	0.00	15.00		2	15.00				0.15	4.50	
	15.00	30.00		2	15.00				0.15	4.50	
	30.00	45.00		2	15.00				0.15	4.50	
	45.00	60.00		2	15.00				0.15	4.50	
	60.00	75.00		2	15.00				0.15	4.50	
	75.00	90.00		2	15.00				0.15	4.50	
	90.00	105.00		2	15.00				0.15	4.50	
	105.00	122.00		2	17.00				0.15	5.10	
	128.00	143.00		2	15.00				0.15	4.50	
	143.00	156.00		2	13.00				0.15	3.90	
	LHS										
	128.00	143.00		2	15.00				0.15	4.50	
	143.00	158.00		2	15.00				0.15	4.50	
	158.00	174.00		2	16.00				0.15	4.80	
									Total Qty	**58.80**	**Cum**

CPF 22/11/2019

Consultant

Assistant Engineer

Assistant Executive Engineer

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Name Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6 Yatarayanapura Sub Division

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Measurement Recorded on									
6	KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 (P.No.15, I.No.4.28 of PW, P&IWTD S.R 2016-17)									
	New Drain									
	For Side wall									
	1st main rd (ICICI bank)									
	RHS									
	0.00	15.00		4	15.00			0.63	37.80	
	15.00	30.00		4	15.00			0.63	37.80	
	30.00	45.00		4	15.00			0.63	37.80	
	45.00	60.00		4	15.00			0.63	37.80	
	60.00	75.00		4	15.00			0.63	37.80	
	75.00	90.00		4	15.00			0.63	37.80	
	90.00	105.00		4	15.00			0.63	37.80	
	105.00	122.00		4	17.00			0.63	42.84	
	128.00	143.00		4	15.00			0.63	37.80	
	143.00	156.00		4	13.00			0.63	32.76	
	LHS									
	128.00	143.00		4	15.00			0.63	37.80	
	143.00	158.00		4	15.00			0.63	37.80	
	158.00	174.00		4	16.00			0.63	40.32	
	New Drain									
	1st cross Rd									
	0.00	15.00		4.00	15.00			0.63	37.80	
	15.00	30.00		4.00	15.00			0.63	37.80	
	30.00	40.00		4.00	10.00			0.63	25.20	
	3rd Cross Rd									
	0.00	15.00		4.00	15.00			0.63	37.80	
	15.00	35.00		4.00	20.00			0.63	50.40	
								Total Qty	**682.92**	
								Quantity Limited to	**484.80**	**Sqm**

22/11/2019

22/11/2019

Assistant Engineer

Assistant Executive Engineer

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me Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6
atarayanapura Sub Division

DQ / em / o	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Measurement Recorded on										
	Providing and laying cement concrete using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) M 20 for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, for raft foundation column footing , main and secondary beams with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.)Ready mixed concrete M20 for Raft foundation.column.footing.main and secondary beams(P.No.18, I.No.4.48 of PW, P&IWTD S.R 2016-17)										
	For bottom slab										
	1st main rd (ICICI bank)										
	RHS										
	0.00	15.00		1	15.00			0.90	0.15	2.03	
	15.00	30.00		1	15.00			0.90	0.15	2.03	
	30.00	45.00		1	15.00			0.90	0.15	2.03	
	45.00	60.00		1	15.00			0.90	0.15	2.03	
	60.00	75.00		1	15.00			0.90	0.15	2.03	
	75.00	90.00		1	15.00			0.90	0.15	2.03	
	90.00	105.00		1	15.00			0.90	0.15	2.03	
	105.00	122.00		1	17.00			0.90	0.15	2.30	
	128.00	143.00		1	15.00			0.90	0.15	2.03	
	143.00	156.00		1	13.00			0.90	0.15	1.76	
	LHS										
	128.00	143.00		1	15.00			0.90	0.15	2.03	
	143.00	158.00		1	15.00			0.90	0.15	2.03	
	158.00	169.00		1	11.00			0.90	0.15	1.49	
	For side wall										
	1st main rd (ICICI bank)										
	RHS										
	0.00	15.00		2	15.00			0.15	0.65	2.93	
	15.00	30.00		2	15.00			0.15	0.68	3.06	
	30.00	45.00		2	15.00			0.15	0.65	2.93	
	45.00	60.00		2	15.00			0.15	0.70	3.15	
	60.00	75.00		2	15.00			0.15	0.65	2.93	

22/11/2019

Consultant

Assistant Engineer

Assistant Executive Engineer

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Measurements

f work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6
yanapura Sub Division

Description		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Chainage										
Measurement Recorded on										
75.00	90.00		2	15.00			0.15	0.70	3.15	
90.00	105.00		2	15.00			0.15	0.65	2.93	
105.00	122.00		2	17.00			0.15	0.65	3.32	
128.00	143.00		2	15.00			0.15	0.65	2.93	
143.00	156.00		2	13.00			0.15	0.65	2.54	
LHS										
128.00	143.00		2	15.00			0.15	0.65	2.93	
143.00	158.00		2	15.00			0.15	0.65	2.93	
158.00	169.00		2	11.00			0.15	0.65	2.15	
								Total Qty	63.62	
								Qty Limited to	63.62	Cum

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Assistant Engineer
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Assistant Executive Engineer
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24

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Pre-Measurements

Name Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Basavanapura Sub Division

Description	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Chainage									
Measurement Recorded on									
KSRB - 4.9.2: Providing TMT steel Fe500 reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.2 of PW, P&IWTD S.R									
New Drain									
1st main rd (ICICI bank)									
New Drain									
10 mm main U bars							0.617	1611.42	
Main bars	1	1274	2.05						
8mm Dia bars							0.395	1131.68	
Distribution Bars	1	15	191.00						
								2743.09	Kgs
							Total Qty	2.74	Tonne

22/11/2019

Assistant Engineer
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Assistant Executive Engineer
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24

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Name of Measurements

Name of Work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Narayanapura Sub Division

Description	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Chainage									
Measurement Recorded on									
KSRRBM2100-1.1 Earth work in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications I. Ordinary soil - A . Manual Means (i) Depth upto 3m MORTH Specification No. 304 (P.No.209, I.No.27.1 of PW,									
New Drain									
1st cross Rd									
0.00	15.00		1	15.00			0.75	1.00	11.25	
15.00	30.00		1	15.00			0.75	1.00	11.25	
30.00	40.00		1	10.00			0.75	1.00	7.50	
3rd Cross Rd									
0.00	15.00		1	15.00			0.75	1.00	11.25	
15.00	35.00		1	20.00			0.75	1.00	15.00	
SWD									
			1	35.50			2.00	2.10	149.10	
								Total Qty	**205.35**	
							Quantity Limited to		**74.24**	**Cum**

22/11/2019

Consultant

Assistant Engineer

Assistant Executive Engineer

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Name Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Vijayanapura Sub Division

Description	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Chainage									
Measurement Recorded on									
KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift, complete as per specifications. specification. No. KBS (P.No.6. No.2.15 of PW, P&IWTD S.R 2016-17)									
New Drain									
1st cross Rd									
0.00	15.00	1	15.00			0.75	0.20	2.25	
15.00	30.00	1	15.00			0.75	0.20	2.25	
30.00	40.00	1	10.00			0.75	0.20	1.50	
3rd Cross Rd									
0.00	15.00	1	15.00			0.75	0.20	2.25	
15.00	35.00	1	20.00			0.75	0.20	3.00	
SWD		1	35.50			2.00	0.30	21.30	
							TOTAL	32.55	
							Quantity Limited to	13.92	cum

03/11/2017

Scanned by CamScanner

Measurements

Name of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6
Narayanapura Sub Division

Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Measurement Recorded on										
KSRRB M2100-13. Plain / Reinforced Cement Concrete M15 with OPC cement @ 240kgs. with 40mm and down size graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum in Open Foundation complete as per Drawing and Technical Specifications MORTH Specification No. 1500,1700 & 2100 (P.No.211, I.No.27.24 of PW, P&IWTD S.R 2016-17)										
PCC FOR NEW DRAIN										
1st cross Rd										
0.00	15.00		1.00	15.00			0.75	0.10	1.13	
15.00	30.00		1.00	15.00			0.75	0.10	1.13	
30.00	40.00		1.00	10.00			0.75	0.10	0.75	
3rd Cross Rd										
0.00	15.00		1.00	15.00			0.75	0.10	1.13	
15.00	35.00		1.00	20.00			0.75	0.10	1.50	
SWD			1.00	35.50			2.00	0.15	10.65	
								TOTAL	16.28	
							Quantity Limited to		5.52	cum

Consultant

Assistant Engineer

Assistant Executive Engineer

Scanned by CamScanner

Measurements

Name of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6
Narayanapura Sub Division

Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Measurement Recorded on									
KSRRB M2100-20.2. Plain / Reinforced Cement Concrete in Open Foundation with OPC cement design mix M35 @ 390kgs. with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum. with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008. case II : With Batching Plant. Transit Mixer and Concrete Pump MORTH Specification No. 1500.1700 & 2100 (P.No.213. I.No.27.37. of PW. P&IWTD S.R 2016-17)									
RAFT CONCRET FOR NEW DRAIN									
1ST Cross Rd									
0.00	15.00		1.00	15.00			0.75	0.20	2.25	
15.00	30.00		1.00	15.00			0.75	0.20	2.25	
30.00	40.00		1.00	10.00			0.75	0.20	1.50	
3rd Cross Rd									
0.00	15.00		1.00	15.00			0.75	0.20	2.25	
15.00	35.00		1.00	20.00			0.75	0.20	3.00	
WALL CONCRET FOR NEW DRAIN									
1ST Cross Rd									
0.00	15.00		2.00	15.00			0.10	0.45	1.35	
15.00	30.00		2.00	15.00			0.10	0.45	1.35	
30.00	40.00		2.00	10.00			0.10	0.45	0.90	
3rd Cross Rd									
0.00	15.00		2.00	15.00			0.10	0.45	1.35	
15.00	35.00		2.00	20.00			0.10	0.45	1.80	
SWD									
	Raft		1.00	35.50			1.40	0.15	7.46	
								TOTAL	**25.46**	
								Quantity Limited to	**12.25**	**cum**

C & FC
29.5.19
25/11/2019

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Consultant

Assistant Engineer
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25/11/2019
Assistant Executive Engineer
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

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Measurements

Work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Narasimharaja Sub Division

Description	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Chainage									
Measurement Recorded on									
SSRRB M2200-5.18.Design mix M35 with OPC cement @ 390kgs. with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum. with superplastisiser @3lts confirming to IS9103 1999 Reaffirmed-2008 - i) U pto 5m height. (P.No.214, I.No.28.7.18 of PW, CO/WTD S.R 2016-17)									
SWD									
	Side Wall								
			2.00	35.50			0.20	1.50	21.30
								TOTAL	21.30

cum

25/11/2019

Consultant

Assistant Engineer

Assistant Executive Engineer

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Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6
ayanapura Sub Division

Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Measurement Recorded on									
KSRRB M2200- TMT/MS Bar Reinforcement KSRRB M2200-6. Supplying, fitting and placing TMT bar reinforcement in sub-structure complete as per drawing and Technical Specifications complete as per specificationsMORTH Specification No.1600 & 2200 - TMT Bars Fe 500 (P.No.214, I.No.28.8.2 of PW. P&IWTD S.R 2016-17)									
New Drain									
10 mm main U bars									
Main bars	1	751	2.20				0.617	1019.41	
8mm Dia bars									
Distribution Bars	1	23	75.00				0.395	681.38	
SWD									
Outer Bar									
12 mm main U bars									
Main bars	1	179	4.60				0.889	731.91	
10mm Dia bars									
Distribution Bars	1	24	35.50				0.617	525.93	
Inner bar									
12 mm main U bars									
Main bars	1	179	4.20				0.889	668.27	
10mm Dia bars									
Distribution Bars	1	22	35.50				0.617	482.10	
								4108.98	Kgs
							TOTAL	4.11	
							Quantity Limited to	3.72	Tonne

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2/12/2019

Consultant

Assistant Engineer 2/12/2019

Assistant Executive Engineer 2/12/2019

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e- Measurements

Of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6
ravanapura Sub Division

Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Measurement Recorded on										
KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)										
1st cross Rd										
0.00	15.00		1	15.00	5.30	5.10	5.20	0.25	19.50	
15.00	30.00		1	15.00	5.10	5.70	5.40	0.25	20.25	
30.00	45.00		1	15.00	5.70	4.30	5.00	0.25	18.75	
45.00	60.00		1	15.00	4.30	4.50	4.40	0.25	16.50	
60.00	75.00		1	15.00	4.50	4.80	4.65	0.25	17.44	
75.00	90.00		1	15.00	4.80	4.20	4.50	0.25	16.88	
90.00	105.00		1	15.00	4.20	4.80	4.50	0.25	16.88	
105.00	117.20		1	12.20	4.80	4.50	4.65	0.25	14.18	
118.50	133.50		1	15.00	4.50	4.70	4.60	0.25	17.25	
133.50	148.50		1	15.00	4.70	4.80	4.75	0.25	17.81	
148.50	163.50		1	15.00	4.80	4.90	4.85	0.25	18.19	
163.50	167.50		1	4.00	4.90	5.20	5.05	0.25	5.05	
169.10	184.10		1	15.00	5.20	5.20	5.20	0.25	19.50	
184.10	199.10		1	15.00	5.20	6.00	5.60	0.25	21.00	
199.10	213.00		1	13.90	6.00	6.80	6.40	0.25	22.24	
1st main rd(ICICI bank)										
0.00	185.00		2	5.00	0.90	0.90	0.90	0.25	2.25	
			5	5.00	1.00	1.00	1.00	0.25	6.25	
bad reaches			18	1.40	0.90	0.90	0.90	0.25	5.67	
								TOTAL	275.58	
								Quantity Limited to	265.47	Cum

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9/12/2019

9/12/2019

Assistant Engineer

9/12/2019

Assistant Executive Engineer

Consultant

Scanned by CamScanner

Measurements

Name of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6
Ramanagara Sub Division

Description	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Chainage									
Measurement Recorded on									
KSRRB M 400-17. Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW.P&IWTD SR 2016-17)									
1st cross Rd									
0.00	15.00		1	15.00	5.30	5.10	5.20	0.20	15.60
15.00	30.00		1	15.00	5.10	5.70	5.40	0.20	16.20
30.00	45.00		1	15.00	5.70	4.30	5.00	0.20	15.00
45.00	60.00		1	15.00	4.30	4.50	4.40	0.20	13.20
60.00	75.00		1	15.00	4.50	4.80	4.65	0.20	13.95
75.00	90.00		1	15.00	4.80	4.20	4.50	0.20	13.50
90.00	105.00		1	15.00	4.20	4.80	4.50	0.20	13.50
105.00	117.20		1	12.20	4.80	4.50	4.65	0.20	11.35
118.50	133.50		1	15.00	4.50	4.70	4.60	0.20	13.80
133.50	148.50		1	15.00	4.70	4.80	4.75	0.20	14.25
148.50	163.50		1	15.00	4.80	4.90	4.85	0.20	14.55
163.50	167.50		1	4.00	4.90	5.20	5.05	0.20	4.04
169.10	184.10		1	15.00	5.20	5.20	5.20	0.20	15.60
184.10	199.10		1	15.00	5.20	6.00	5.60	0.20	16.80
199.10	213.00		1	13.90	6.00	6.80	6.40	0.20	17.79
1st main rd(ICICI bank)									
0.00	185.00		2	5.00	0.90	0.90	0.90	0.20	1.80
			5	5.00	1.00	1.00	1.00	0.20	5.00
bad reaches			18	1.40	0.90	0.90	0.90	0.20	4.54
							TOTAL		220.46
						Quantity Limited to			212.11

CPRC

16/12/2019

Consultant

Assistant Engineer

Assistant Executive Engineer

16/12/2019

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Measurements

Name of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Devanapura Sub Division

Description	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Chainage									
Measurement Recorded on									
SSRB M 500-6. Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)									
1st cross Rd									
0.00 15.00		1	15.00	5.30	5.10	5.20		78.00	
15.00 30.00		1	15.00	5.10	5.70	5.40		81.00	
30.00 45.00		1	15.00	5.70	4.30	5.00		75.00	
45.00 60.00		1	15.00	4.30	4.50	4.40		66.00	
60.00 75.00		1	15.00	4.50	4.80	4.65		69.75	
75.00 90.00		1	15.00	4.80	4.20	4.50		67.50	
90.00 105.00		1	15.00	4.20	4.80	4.50		67.50	
105.00 117.20		1	12.20	4.80	4.50	4.65		56.73	
118.50 133.50		1	15.00	4.50	4.70	4.60		69.00	
133.50 148.50		1	15.00	4.70	4.80	4.75		71.25	
148.50 163.50		1	15.00	4.80	4.90	4.85		72.75	
163.50 167.50		1	4.00	4.90	5.20	5.05		20.20	
169.10 184.10		1	15.00	5.20	5.20	5.20		78.00	
184.10 199.10		1	15.00	5.20	6.00	5.60		84.00	
199.10 213.00		1	13.90	6.00	6.80	6.40		88.96	
1st main rd(ICICI bank)									
0.00 185.00		2	5.00	0.90	0.90	0.90		9.00	
		5	5.00	1.00	1.00	1.00		25.00	
bad reaches		18	1.40	0.90	0.90	0.90		22.68	
							TOTAL	1102.32	
							Quantity Limited to	1060.78	Sqm

22.25 1/1/2020

Assistant Engineer

01/01/2020

Assistant Executive Engineer

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Measurements

Name of work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Devanapura Sub Division

Description	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Chainage									
Measurement Recorded on									
SSRB 500-2. Cleaning the existing black topped surface with brooms. soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials. labour. HOM of machineries complete as per specifications. MORTH specification clause 501 Pg.No.161 I.No.21.2 of PW.P&IWTD SR of 2016-17)									
1st main rd(ICICI bank)									
0.00 15.00		1	15.00	6.30	6.10	6.20		93.00	
15.00 30.00		1	15.00	6.10	6.00	6.05		90.75	
30.00 45.00		1	15.00	6.00	6.00	6.00		90.00	
45.00 60.00		1	15.00	6.00	5.20	5.60		84.00	
60.00 75.00		1	15.00	5.20	5.60	5.40		81.00	
75.00 90.00		1	15.00	5.60	5.50	5.55		83.25	
90.00 105.00		1	15.00	5.50	4.80	5.15		77.25	
105.00 121.80		1	16.80	4.80	5.50	5.15		86.52	
128.30 143.30		1	15.00	5.50	6.30	5.90		88.50	
143.30 158.30		1	15.00	6.30	6.10	6.20		93.00	
158.30 173.30		1	15.00	6.10	6.50	6.30		94.50	
173.30 179.00		1	5.70	6.50	7.00	6.75		38.47	
1st main rd(ICICI bank)									
0.00 185.00		-2.00	5.00	0.90	0.90	0.90		-9.00	
		-5.00	5.00	1.00	1.00	1.00		-25.00	
bad reaches		-18.00	1.40	0.90	0.90	0.90		-22.68	
							TOTAL	943.57	
							Quantity Limited to	850.00	Sqm

1/1/2022

Assistant Engineer

Assistant Executive Engineer

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Measurements

Work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Anekapura Sub Division

Description of Work / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Measurement Recorded on										
SSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm. heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)										
For DBM /profile correction										
1st main rd(ICICI bank)										
0.00	15.00		1	15.00			1.50		22.50	
15.00	30.00		1	15.00			1.30		19.50	
30.00	45.00		1	15.00			1.30		19.50	
45.00	60.00		1	15.00			1.30		19.50	
60.00	75.00		1	15.00			1.30		19.50	
75.00	90.00		1	15.00			1.30		19.50	
90.00	105.00		1	15.00			1.50		22.50	
105.00	121.80		1	16.80			1.48		24.86	
128.30	143.30		1	15.00			1.30		19.50	
143.30	158.30		1	15.00			1.35		20.25	
158.30	173.30		1	15.00			1.30		19.50	
173.30	179.00		1	5.70			1.30		7.41	
For B.C laying										
1st cross Rd										
0.00	15.00		1	15.00	5.30	5.10	5.20		78.00	
15.00	30.00		1	15.00	5.10	5.70	5.40		81.00	
30.00	45.00		1	15.00	5.70	4.30	5.00		75.00	
45.00	60.00		1	15.00	4.30	4.50	4.40		66.00	
60.00	75.00		1	15.00	4.50	4.80	4.65		69.75	
75.00	90.00		1	15.00	4.80	4.20	4.50		67.50	
90.00	105.00		1	15.00	4.20	4.80	4.50		67.50	
105.00	117.20		1	12.20	4.80	4.50	4.65		56.73	
118.50	133.50		1	15.00	4.50	4.70	4.60		69.00	
133.50	148.50		1	15.00	4.70	4.80	4.75		71.25	
148.50	163.50		1	15.00	4.80	4.90	4.85		72.75	
163.50	167.50		1	4.00	4.90	5.20	5.05		20.20	
169.10	184.10		1	15.00	5.20	5.20	5.20		78.00	
184.10	199.10		1	15.00	5.20	6.00	5.60		84.00	
199.10	213.00		1	13.90	6.00	6.80	6.40		88.96	
1st main rd(ICICI bank)										

Assistant Engineer

Assistant Executive Engineer

Scanned by CamScanner

Measurements

Work :- Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Nanapura Sub Division

Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Measurement Recorded on										
0.00	15.00		1	15.00	6.30	6.10	6.20		93.00	
15.00	30.00		1	15.00	6.10	6.00	6.05		90.75	
30.00	45.00		1	15.00	6.00	6.00	6.00		90.00	
45.00	60.00		1	15.00	6.00	5.20	5.60		84.00	
60.00	75.00		1	15.00	5.20	5.60	5.40		81.00	
75.00	90.00		1	15.00	5.60	5.50	5.55		83.25	
90.00	105.00		1	15.00	5.50	4.80	5.15		77.25	
105.00	121.80		1	16.80	4.80	5.50	5.15		86.52	
128.30	143.30		1	15.00	5.50	6.30	5.90		88.50	
143.30	158.30		1	15.00	6.30	6.10	6.20		93.00	
158.30	173.30		1	15.00	6.10	6.50	6.30		94.50	
173.30	179.00		1	5.70	6.50	7.00	6.75		38.47	
								TOTAL	2279.91	
								Qty Ltd to	2071.10	Sqm

CB FC

1/1/2020

1/1/2020

Assistant Executive Engineer

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Measurements

Work : - Improvements to Road and Drains at Fathima Layout Main Road in Ward no.6

Nagapura Sub Division

Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Measurement Recorded on									
SSRB M500-17. Providing and laying dense graded bituminous macadam ing crushed aggregates of specified grading, premixed with VG30 grade minous binder and, transporting the hot mix to work site, laying to the pared grade, level and alignment, rolling with smooth wheeled, vibratory d tandem rollers to achieve the desired compaction as per MORTH table 00-10 complete in all respects complete as per specifications.. MORTH pecification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical ver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No.163 of No.21.27.6 in PW,P&IWTD S.R 2016-17)									
For DBM /profile correction									
1st main rd(ICICI bank)									
0.00	15.00		1.00	15.00			1.50	0.05	1.13
15.00	30.00		1.00	15.00			1.30	0.05	0.98
30.00	45.00		1.00	15.00			1.30	0.05	0.98
45.00	60.00		1.00	15.00			1.30	0.05	0.98
60.00	75.00		1.00	15.00			1.30	0.05	0.98
75.00	90.00		1.00	15.00			1.30	0.05	0.98
90.00	105.00		1.00	15.00			1.50	0.05	1.13
105.00	121.80		1.00	16.80			1.48	0.05	1.24
28.30	143.30		1.00	15.00			1.30	0.05	0.98
143.30	158.30		1.00	15.00			1.35	0.05	1.01
158.30	173.30		1.00	15.00			1.30	0.05	0.98
173.30	179.00		1.00	5.70			1.30	0.05	0.37
								TOTAL	11.70
								Qty Ltd to	8.00 Sqm

Assistant Engineer

Assistant Executive Engineer

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